REMARKS

Applicants submit this Amendment and Response in reply to the Final Official Action dated July 25, 2008.

At the onset, Applicants note that claim 18 has been amended herewith. Claim 18 has been amended to recite, *inter alia*, an adjustment frame having the adjustment mechanism dispose through the adjustment frame, the adjustment frame connecting the optical system support member and the imaging element support member so as to form a space where a deformed part of the bellows portion in the direction orthogonal to the direction of the optical axis which is caused by movements of the optical system support member and the imaging element support member is located. Additionally, claim 18 has been amended to recite that the adjustment mechanism maintains, *inter alia*, a state of adjustment after performing the adjustment.

Further, the claim has been amended to recite, *inter alia*, a tubular member comprising a first end and a second end that oppose each other. Additionally, the claim has been amended to clarify the bellows portion. Specifically, the bellows portion is adapted to allow adjustment of relative positions of the optical system support member and the imaging element support member, the bellows portion expanding and contracting for distance adjustment and deforming for position adjustment such that, said at least one optical lens of the optical system support member and said imaging element of the imaging element support member oppose each other in the tubular member.

Additionally, claims 24-28 have been amended for consistency. Applicants submit new claims 36-41 for examination. Claims 36-41 are directed to the adjustment mechanism.

No new matter has been added to the application by way of the aforementioned amendments. For example, Applicants direct the Examiner's attention to pages 10-23 the identified section is presented only by way of an example and should not be taken as an exhaustive list of support.

Applicants submit that the claims (including the new claims) are patentable over any of the references cited in the Final Official Action, whether taken alone or in any combination thereof.

In the Final Official Action, claims 18-20 and 22-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi (previous cited) in view of Chikama (previously cited). Claims 29-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi, Chikama and MacKinnon.

Applicants submit that the cited references fail to teach an adjustment frame having the adjustment mechanism dispose through the adjustment frame as recited in claim 18.

Takahashi teaches that the variable power lens 3 and compensating lens 14 are driven by an optical system driving means 78 and move back and forth along the optical axis, thus changing magnifications. *See* Col. 5 lines 59-62. Takahashi further teaches that the CCDs 2a and 2b are moved so that the intersection between the axes of the right and left optical systems passing through the centers of the imaging surfaces of the CCDs will intersect at the location of the object 11. *See* Col. 6, lines 39-42.

Takahashi teaches that the CCD driving means 16 includes a motor serving as a driving source and gears. In the CCD drive mechanism, two shafts 6 and 7 are running in parallel with the imaging surfaces of the CCDs 2a and 2b. The drive shaft 6 is segmented with a stopper 6a as a center and threaded clockwise and counterclockwise toward both ends to provide male screws

6b and 6c. In the CCDs 2a and 2b, female screws 2c and 2d are threaded to be engaged with the male screws 6b and 6c. The guide shaft 7 is inserted into through holes 2e and 2f of the CCDs 2a and 2b.

A driving gear 10 is fixed to one end of the drive shaft 6 and engaged with a rotary gear 9 of a motor 8 controlled by the control means 17. By rotating the drive shaft 6, the CCDs 2a and 2b slide along the shafts. *See* Col. 7, lines 17-38. Chikama discloses a bellows portion that is operated using control wires.

In contrast, the claimed invention comprises an adjustment frame that is fixed to both the imaging optical frame and the imaging element frame. The adjustment frame is disposed to the outside of the optical and imaging units. The adjustment frame connects the optical system support member and the imaging element support member.

Neither reference teaches that the adjustment means are disposed through the adjustment frame in predetermined positions, as claimed.

Therefore, Applicants submit that the combined references fail to teach the claimed adjustment frame.

Additionally, Applicants submit that the hypothetically combined references fail to teach the bellows portion that is adapted to allow adjustment of relative positions of the optical system support member and the imaging element support member, the bellows portion expanding and contracting for distance adjustment and deforming for position adjustment such that, the at least one optical lens of the optical system support member and the imaging element of the imaging element support member oppose each other in the tubular member.

Chikama simply discloses a bellows portion. The bellows portion is merely a tube which forms a bellow shape to allow expansion and contraction. Chikama does not disclose a concept

of changing the positions of members arranged at both ends of the bellows portion. Even if Chikama suggests distance adjustment, the reference does not teach distance adjustment with maintaining the "opposing each other."

Accordingly, Takahashi and Chikama fail to teach each and every limitation of the independent claim 18. Therefore, claim 18 is patentable over the cited combination.

Claims 19, 20, 22-28 are patentable over the cited combination based at least upon the above-identified analysis and in view of their dependency, whether directly or indirectly, from claim 18.

Additionally, Claims 29-35 are patentable over the cited combination based at least upon the above-identified analysis and in view of their dependency, whether directly or indirectly, from claim 18. MacKinnon fails to cure the above-identified deficiencies.

Applicants further submit that new claims 36-41 are patentable over the cited references. Notably, neither reference teaches that the adjustment mechanism is located outside of an airtight sealed area formed from the tubular member, optical system support member and image element support member, as recited in claim 36.

In the claimed invention, the adjustment mechanism is disposed to the adjustment frame, which is disposed to the imaging optical unit integrally therewith, in the states in which they are screwed into the adjustment frame, whereby the imaging unit capable of performing the various adjustments of the axial direction, decentering, tilt, and the like. As a result, there can be provided the endoscope imaging apparatus the cost and size of which are decreased by the reduction of the number of parts and the man-hours for assembly and adjustment. Since the various adjustments can be performed from the outside of the airtight sealed unit, there can be

provided the endoscope imaging apparatus the final optical performance of which is adjusted to an optimum state and which can cope with an airtight arrangement.

Additionally, the cited references fail to teach that the adjustment mechanism is a plurality of screws disposed through the adjustment frame.

The claimed invention includes a plurality of adjustment screws 33, the extreme end surfaces of which are abutted against the outside surface 21a of the imaging element frame 21, and an axial direction adjustment spacer 34, which has a male screw formed on the outer peripheral surface thereof abutting against the outside surface 26a of the hermetic connector 23, are screwed into and disposed to the adjustment frame 32 at predetermined positions, respectively.

The adjustment screws 33 include orthogonal direction adjustment screws 33a, 33b, 33c, and 33d, which are abutted against the outside surface 21a of the imaging element frame 21 and move the imaging element frame 21 in a direction orthogonal to the optical axis, and axial direction adjustment screws 33e, 33f, 33g, and 33h, which are abutted against the outside surface 26a of the hermetic connector 23 and move the imaging element frame 21 in the optical axis direction.

As noted above, the adjustment mechanism disclosed in Takahashi is fundamental different than the claimed mechanism.

In Chikama, operating wires are used as the adjustment mechanism. For example, in an embodiment, Chikama uses four operating wires 51 to 54 are disposed in an internal space 61 of the bellows 60, and are passed through the insertion holes 63a of the four rows of first pieces 63, respectively. "When one of the operating wires 51 and 52 is pulled, the bellows 60 can not be bent at the regions P, but can be bent at the regions Q in the direction Y (FIG. 18)." When one

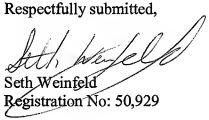
of the operating wires 53 and 54 is pulled, the bellows 60 can not be bent at the regions Q, but can be bent at the regions P in the direction X (FIG. 18). Col. 9, lines 1-11. MacKinnon also does not teach the claimed adjustment mechanism.

Accordingly, Applicants submit that the new claims are patentable over the cited references.

Based upon the foregoing, Applicants respectfully request that the Examiner allow claims 18-20 and 22-41.

In conclusion, the Applicants believe that the above-identified application is in condition for allowance and henceforth respectfully solicit the Examiner to allow the application. If the Examiner believes a telephone conference might expedite the allowance of this application, the Applicants respectfully request the Examiner call the undersigned, Applicants' attorney, at the following telephone number (516)-742-434.

Respectfully submitted,



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